## REMARKS

### I. Status of the Application

Claims 1-13 and 15-18 are pending in the application. Claims 1, 10, 11, 12, 15, 17 and 18 are amended and claim 9 was cancelled. Applicant respectfully submits that any amendments are supported by the specification. Therefore, claims 1-8, 10-13 and 15-18 remain at issue.

In the Office Action, the Examiner rejected claims 1,3-4, 11-13, 15, 17 and 18 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,458,699 to Padrta. Claims 2 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Padrta in view of U.S. Patent No. 7,367,216 to Bonne ("Bonne"). Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Padrta in view of U.S. Patent No. 5,313,061 to Drew et al. ("Drew"). Applicant respectfully traverses the rejections in view of the remarks herein. Applicant believes the present application is in condition for allowance and respectfully requests notice of same.

### II. Rejections under 35 U.S.C. §102(b)

The Examiner rejected claims 1, 3-4. 11-13, 15, 17 and 18 under 35 U.S.C. §102(b) as being unpatentable over Padrta. In order for a reference to act as a 102 bar to patentability, the reference must teach each and every element of the claimed invention. *Kalmun v. Kimberly-Clark Corp.*, 713 F2d. 760,771 (Fed. Cir. 1983). Applicant respectfully submits that Padrta is not a valid §102(b) against the claims as currently amended, as it does not disclose each and every element of these claims.

Specifically, claims 1 and 15 have been amended to include a second evacuated chamber, and that the pre-evacuated chamber is located within the second evacuated chamber. In addition, the pressure within the pre-evacuated chamber is less than that of the second evacuated chamber. Firstly, Padrta does not disclose a pre-evacuated chamber. A "pre-evacuated chamber" means that the chamber is already under vacuum conditions. This distinction is important, because all Padrta teaches is that the analyzer is operable under vacuum conditions, not that it is pre-evacuated (see col. 4, lines 65-72 - "*[g]enerally, the analyzer inlet section 22, although not shown in detail, will be within, a heated oven section,* ***as well as connective with vacuum means, whereby the sample material is readily vaporized and drawn into the analyzer itself***" (emphasis added)

It is evident that the vacuum conditions provided within the analyzer section of Padrta are active vacuum conditions in that the section is coupled to a vacuum means, which is operable to draw the sample into the analyzer. The disclosure of an analyzer inlet section that is coupled to a vacuum means for generation of a vacuum within that section is **not** the same as the provision of a pre-evacuated chamber. With a pre-evacuated chamber, the vacuum is already present and there is no need to couple it to a vacuum means. The present inventor has obviated the complicated requirements of coupling vacuum pumps to the chamber within which the mass spectrometer device is provided by pre-evacuating the chamber. The system of claim 1 provides the evacuated chamber as a pre-evacuated chamber such that on opening the valve, a pressure differential is generated across the membrane that through the passage of time is equalized by the introduction of a sample into the chamber, and the simultaneous reduction in pressure as the pressure within the pre-evacuated chamber increases. Without any additional pumping of the pre-evacuated chamber, an opening of the chamber to the ambient conditions external to the chamber provides for the increase in pressure within the chamber such that ultimately there is no pressure differential across the membrane- see for example Page 13 lines 1 to 5 of the published specification.

Thus, Applicant respectfully submits that Padrta does not disclose all of the elements of amended claims 1 and 15, and thus fails as an anticipatory references. In addition, because claims 3-4 and 11-13 depend from claim 1, and claims 17 and 18 depend from claim 15, and necessarily include all of the elements of the respective independent claims, these dependent claims are likewise patentable over Padrta.

**III. Rejections under 35 U.S.C. §103(a)**

Claims 2 and 16 are being rejected under 35 U.S.C. §103(a) as being unpatentable over Padrta in view of Bonne. Claim 2 depends from claim 1, while claim 16 depends from claim 15. As previously explained, not all of the limitations of independent claims 1 and 15 are taught or suggested by Padrta, and the addition of Bonne does not make up for these deficiencies. Therefore, even if properly combined, Applicant respectfully submits that claims 2 and 16 are patentable over this combination of references.

Claims 5-10 are being rejected under 35 U.S.C. §103(a) as being unpatentable over Padrta in view of Drew. Claim 9 is cancelled. Again, claims 5-10 depend ultimately from claim

1, and as discussed above, Padrta does not disclose the all of the elements of amended claim 1. The addition of Drew does not make up for the deficiencies of Padrta.

Applicant respectfully submits that even if Padrta and Drew are properly combined, such reasoning for combining these references, does not meet the standard set forth by the Supreme Court in *KSR v. Telefelx*. In *KSR*, the Supreme Court stated that a rejection of a patent claim on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support a legal conclusion of obviousness. *KSR Int'L Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740-41 (2007). Contrary to the requirements of *KSR*, the Examiner has merely put forth conclusory statements for the combination. The examiner has not provided specific reasoning to support the alleged combination, and thus has failed to present a prima facie case of obviousness.

This conclusion is clear from the Office Action and the apparent misinterpretation of the teachings of Padrta and Drew. It is stated in the Office Action that Padrta does not disclose a second evacuated chamber, the first evacuated chamber being located within the second evacuated chamber, the pressure within the first evacuated chamber being less than that of the second evacuated chamber (Office Action, p. 6). However, Padrta does not even teach a pre-evacuated chamber, as recited in the present claims, because it is evident that the vacuum conditions provided within the analyzer section of Padrta are active vacuum conditions in that the section is coupled to a vacuum means, which is operable to draw the sample into the analyzer. The disclosure of an analyzer inlet section that is coupled to a vacuum means for generation of a vacuum within that section is **not** the same as the provision of a pre-evacuated chamber, which is already under a vacuum. The present invention is directed to a pre-evacuated chamber - Padrta is directed to application of a vacuum during use.

Drew is then cited for the apparent teaching of a second evacuated chamber. The Examiner suggests that Figure 1A of Drew shows a second chamber, identified as element 20. The Examiner then states that the first chamber is located within the second chamber and points to Figure 1 as showing element 20 inside of element 18. There appears to be an inconsistency with this argument in that if 20 is the second chamber how can it be the first chamber as well? The Examiner then points to Col. 12 lines 35-46 and Col. 26 lines 6-10 as teaching the pressure within the first chamber is less than the pressure within the second chamber. Even assuming that

the Examiner meant to state that element 20 was the first chamber, all that the cited passage of Col. 12 teaches is:

> In order to provide the correct environment in which the processes described above can occur, the mass analyzer assembly **21** must be maintained under a vacuum. The mass analyzer assembly **21** of the present invention is pumped-out through a high vacuum shut-off valve **46** to a pressure of $10^{-6}$ to $10^{-7}$ Torr. to increase the mean free path of the ions and the probability that the ions will travel to the detector **44** without colliding with residual gas molecules. At a pressure of $10^{-7}$ Torr., the average distance an ion travels between collisions is long compared to the path length through the mass analyzer assembly **21**.

There is no teaching of relative pressures between a first chamber and a second chamber. This passage teaches the pumping down of the pressure to ensure the mass analyzer 21 is maintained within vacuum conditions. The pumping is achieved by an active pump, which again is different to the pre-evacuated arrangement of the claimed invention.

Col 26 lines 6-10 teaches:

> When the mass spectrometer system **10** is initially started up upon completion of its construction or at a central servicing depot, in the preferred embodiment, a roughing pump external to the system **10** is utilized. A valve is then closed which connects that external system to the internal vacuum envelope **20** and the system is maintained at $10^{-5}$ to $10^{-7}$ Torr. vacuum with the internal ion pump. The roughing pump is then discon-

It is true that Drew teaches a mass spectrometer system. This system is identified at Col. 7, line 61 as being the *mass spectrometer system* 18. It is evident, therefore, that the dash line 18 of Figure 1 surrounding the vacuum pump, the mass analyzer, the control electronics 28 and the high voltage power supply is provided for illustrative purposes only to show components of the system itself as opposed to any one integer of the system. There is no teaching in Drew that the dash line 18 of Figure 1a is in fact a physical component; it is in fact just a schematic graphical tool. There is further no teaching within Drew that everything within the schematic line 18 of Figure 1a is within an evacuated chamber. In fact the person of ordinary skill would readily recognize that elements such as the control electronics, the high voltage power supply and the high vacuum pump (all shown in Figure 1a) would not be within an evacuated chamber.

Indeed at Col. 8, lines 44 onwards, Drew is explicit to what is within and not within what Drew terms the vacuum envelope. Drew is explicit in that the mass spectrometer device component of the mass spectrometer system, what in Drew is termed the mass analyzer and given the reference numeral 21 is the element within a vacuum envelope 20. It is evident, therefore, that when comparing the first pre-evacuated chamber of the present invention with elements of the disclosure of Drew, that it is the vacuum envelope 20 that analogous element as opposed to the entirety of the system 18. The use of a graphical tool to illustrate components of the entirety of the system of Drew does not provide the second evacuated chamber of the present invention. This argument was submitted in the previous response, and Applicant respectfully re-directs the Examiner to this previous response.

Moreover, Applicant respectfully submits that the Examiner could only have arrived at a conclusion of obviousness through hindsight analysis by reading Applicant's own inventive teaching, and by selecting those elements from Padrta and Drew that are deemed relevant to the teachings of the present invention. The Federal Circuit has specifically noted:

> [I]t is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious . . . .[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to depreciate the claimed invention.

*In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992).

Unless the references suggest the particular combination of elements themselves, they cannot show the action invention was obvious. *In re Marhurkar Patent Litigation*, 831 F. Supp.

1354, 28 U.S. P. Q.2d 1801, 1817 (N.D. Ill. 1993). In other words, it is impermissible for the Examiner to select certain elements from Padrta and ignore the other structural teachings of Drew, which were described above. As discussed, Padrta does not teach a pre-evacuated chamber. Drew does not teach a second evacuated chamber. Combination of Padrta and Drew does not lead to the present invention.

In view of the foregoing, Applicant submits it is error to combine the cited reference to render the claimed invention obvious. Applicant respectfully requests withdrawal of the rejection of claims 5-10.

## CONCLUSION

In light of the foregoing reasons, Applicants respectfully requests reconsideration and allowance of claims 1-8, 10-13 and 15-18. The Commissioner is authorized to charge any additional fees or credit any overpayments associated with this Reply to Deposit Account 50-4487. Applicant further invites the Examiner to contact the undersigned representative at the telephone number below to discuss any matters pertaining to the present Application.

Respectfully submitted,

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**CERTIFICATE OF ELECTRONIC TRANSMISSION**

I hereby certify that on February 12, 2010, I electronically transmitted this communication to the United States Patent and Trademark Office using the EFS-Web System.

Cyndy Marcello

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